UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,975	07/21/2005	Alastair J. Martin	PHUS030017US	1970
	7590 06/25/200 LLECTUAL PROPER	EXAMINER		
P. O. Box 3001		MCEVOY, THOMAS M		
BKIARCLIFF I	MANOR, NY 10510		ART UNIT	PAPER NUMBER
			3731	
			MAIL DATE	DELIVERY MODE
			06/25/2009	PAPER

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary		Application No.		Applicant(s)		
		10/542,975	MARTIN, ALASTAIR J.		AIR J.	
		Examiner		Art Unit		
		THOMAS MC	EVOY	3731		
The MAILING DATE of this Period for Reply	communication app	pears on the co	er sheet with the c	correspondence ac	ddress	
A SHORTENED STATUTORY PE WHICHEVER IS LONGER, FROM - Extensions of time may be available under th after SIX (6) MONTHS from the mailing date - If NO period for reply is specified above, the i- Failure to reply within the set or extended per Any reply received by the Office later than the earned patent term adjustment. See 37 CFR	A THE MAILING D.  pe provisions of 37 CFR 1.1  of this communication.  maximum statutory period vide for reply will, by statute  ee months after the mailing	ATE OF THIS (136(a). In no event, h will apply and will expe, cause the application	COMMUNICATION owever, may a reply be tin ire SIX (6) MONTHS from to become ABANDONE	N. nely filed the mailing date of this of D (35 U.S.C. § 133).	·	
Status						
<ul> <li>1) ☐ Responsive to communication</li> <li>2a) ☐ This action is FINAL.</li> <li>3) ☐ Since this application is in colored in accordance with the</li> </ul>	2b)⊡ This ondition for allowa	s action is non-t	formal matters, pro		e merits is	
Disposition of Claims						
4)	is/are withdraged. /are rejected. ted to.	wn from consid				
Application Papers						
9) The specification is objected 10) The drawing(s) filed on Applicant may not request that Replacement drawing sheet(s) 11) The oath or declaration is ob	is/are: a) acc any objection to the including the correct	cepted or b) control of drawing(s) be he tion is required if	eld in abeyance. See the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 C	, ,	
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing 3) Information Disclosure Statement(s) (PT Paper No(s)/Mail Date		4) [ 5) [ 6) [	Interview Summary Paper No(s)/Mail Da Notice of Informal P Other:	ate		

Application/Control Number: 10/542,975 Page 2

Art Unit: 3731

### **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 2. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. No specific structure is disclosed for the claimed embodiment. One of ordinary skill in the art could not be expected to visualize (without any drawings), from Applicant's brief written description of this embodiment, a specific combination of two separate stents with patterns that cancel eachother. Examiner notes that simply reversing the Figure 2 pattern and placing it within the Figure 2 stent (although this is not specifically disclosed) would result (as disclosed by Applicant) in two stent patterns such that the currents within each stent are cancelled out due to the stent pattern in which they flow; not by the other stent.
- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 recites the limitation "the insulator nodes" in lines

Application/Control Number: 10/542,975

Art Unit: 3731

16-17. There is insufficient antecedent basis for this limitation in the claim.

Furthermore, it is unclear what this limitation is intended to mean in its present context.

Page 3

# Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  - 1. Determining the scope and contents of the prior art.
  - 2. Ascertaining the differences between the prior art and the claims at issue.
  - 3. Resolving the level of ordinary skill in the pertinent art.
  - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pacetti (US 2002/0188345).

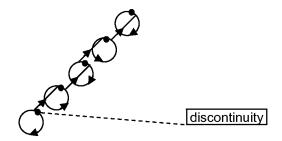
Regarding claim 13, Pacetti discloses a magnetic resonance compatible stent for use in intravascular therapy, the stent comprising: a plurality of electrically conductive elements arranged in a generally tubular structure, the conductive elements comprising generally diagonally arranged struts with respect to a central axis of the stent, the conductive elements comprising: a plurality of loops 40 disposed about a central axis of the stent; and a plurality of linking members 50 for joining the loops such that the loops, and linking members form a generally tubular structure around the central axis of the

Application/Control Number: 10/542,975

Art Unit: 3731

Page 4

stent; and a plurality of non-conductive connector nodes 52 disposed among the conductive elements for directing a current induced by RF signals in an examination region of a magnetic resonance apparatus such that a net current flowing in the stent is substantially minimized. Pacetti fails to specifically disclose that the current is directed to flow in the conductive elements such that adjacent segment currents cancel each other; wherein the loops and linking members are connected within insulator nodes such that the currents flowing through adjacent loops substantially cancel each other. Pacetti discloses that any number or arrangement of the connecting members and non-conductive connector nodes may be made to form the stent, which is only dependent on design choice so long as complete electrical loops or cells are avoided (paragraphs 0034 and 0035). It therefore would have been obvious to one of ordinary skill in the art to have constructed the stent of Pacetti with, for example, one connecting member between adjacent loops and one discontinuity per loop. Any possible arrangement using these criteria would also be obvious; such as the construction shown below.



8. Claims 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pacetti (US 2002/0188345) in view of Lau et al. (US 6,066,168).

Regarding claims 16 and 19, Pacetti discloses the stent as described above but fails to disclose a diamond-shaped mesh (presuming this refers to Applicant's Figure 2 embodiment). Pacetti discloses that the features of his invention are to be incorporated into any prior art stent (paragraph 0041) and only discloses specific stent constructions as examples. Lau et al. disclose an out-of-phase alignment (Figure 11) of stent loops (that would form a diamond-shaped mesh at least when expanded; Applicant has not claimed the structure of the individual diamond-shaped elements). Lau et al. disclose that one connector can be used to connect adjacent loops and that the connectors can be substantially aligned (Figure 7). Lau et al. disclose that the connectors should connect between only peaks or valleys (col. 3, lines 5-9). It would have been obvious to one of ordinary skill in the art to have configured the invention of Pacetti with the Lau et al. out-of-phase alignment and substantially aligned connectors having only peak-topeak or valley-to-valley connections because Lau et al. disclose this as a suitable stent contraction and Pacetti discloses that any prior-art stent can be used. This combination would reasonably result in the above drawing since it avoids complete electrical loops and incorporates the structural features of Lau et al. Regarding claim 20, the above combination could be made incorporating the connectors being placed at 90° intervals as shown in Figure 8 of Lau et al. Again, it would have been obvious to one of ordinary skill in the art to have placed one non-conductive connector node per loop in any arrangement so long as the criteria of Pacetti is met: no complete conductive loops or cells - as described above. With the structure of Lau et al. and this criteria, one of ordinary skill in the art could place non-conductive connector nodes so that current

Art Unit: 3731

flows in equal but opposite directions, in directly opposite peripheral portions of adjacent loops, so that the currents are cancelled.

# Response to Arguments

9. Applicant's arguments filed March 10<sup>th</sup> 2009 have been fully considered but they are not persuasive. Applicant has argued that Pacetti teaches away from the limitations of claim 13. Examiner respectfully disagrees and believes that Pacetti teaches placing non-conductive connector nodes in any arrangement on any stent so long as complete conductive loops (structural loops, not necessarily complete conductive paths) or complete conductive cells are avoided.

### Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 10/542,975 Page 7

Art Unit: 3731

11. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to THOMAS MCEVOY whose telephone number is

(571)270-5034. The examiner can normally be reached on M-F, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Mcevoy/

Examiner, Art Unit 3731

/Anhtuan T. Nguyen/

Supervisory Patent Examiner, Art Unit 3731

6/22/09